

**CWA COMPLIANCE EVALUATION INSPECTION REPORT
U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION 5**

Purpose: Compliance Evaluation Inspection

Facility: Calf Land, LLC.

Ex. 6 (Personal Privacy)

NPDES Permit Number: ING803732 (no longer in affect)

Date of Inspection: October 31, 2013

EPA Representatives: Ben Atkinson, Agronomist
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State Representatives: None

Facility Representatives: Ex. 6 (Personal Privacy) Manager

Ex. 6 (Personal Privacy)

Report Prepared by: Ben Atkinson, Agronomist

Report Date: 3/13/2018

Inspector Signature:

Approver Signature:

Approval Date:

3/15/18

MAR 15 2018

1. BACKGROUND

The purpose of this report is to describe, evaluate and document Calf Land's compliance with the Clean Water Act (CWA) at its Fair Oaks, Indiana facility on October 31, 2013. This inspection was performed pursuant to Section 308(a) of the Federal Water Pollution Control Act, as amended.

Calf Land is a Limited Liability Company (LLC) calf raising operation in Jasper County, Indiana. It is owned and operated by [Ex. 6 (Personal Privacy)] [Ex. 6 (Personal Privacy)] is the General Manager. At the time of inspection, October 31, 2013, the site had approximately 5,000 calves ranging in age from new born to 6 months. The maximum capacity of the facility is between 6,000 and 6,500. The cattle were housed in a combination of pens with attached open lots and calf hutches. [Ex. 6 (Personal Privacy)] stated that the number of animals did fluctuate slightly throughout the year, but not significantly. Calves are raised here from birth to roughly six months of age at which point they are shipped to a facility in Colorado to be raised to maturity and bred. Calf Land is considered a Large Concentrated Animal Feeding Operation (CAFO) due to the number of calves maintained on the facility. Calf Land does not currently have a National Pollutant Discharge Elimination System (NPDES) permit allowing discharge from the site. The facility had previously been covered under permit ING803732 issued by the Indiana Department of Environmental Management (IDEM). As of July 2012, the facility has transitioned into Indiana's Confined Feeding Operations (CFO) program.

At the time of the inspection, surface runoff from the Calf Land site was observed to be flowing to an agricultural field south of the facility and was not observed flowing out of the field. Based on the flow of waterways mapped on the National Hydrography Dataset by the United States Geological Survey, the Surface runoff from the Calf Land site can flow through drainage ways to the Iroquois River that is approximately 15 miles from the facility.

2. SITE INSPECTION

I arrived at Windy Ridge Dairy at approximately 9:12 a.m. on October 31, 2013. I parked the vehicle at the facility office. The temperature was approximately 44° F and it was raining. The weather station, Rensselaer, IN US (USC00127298), in Rensselaer, IN had an observed rainfall of 0.81 in. on October 31, 2013. Upon arrival, Cheryl Burdett, Julianne Socha, and I put on disposable boots. We entered the farm office and I spoke with [Ex. 6 (Personal Privacy)] the 2nd Manager. [Ex. 6 (Personal Privacy)] contacted [Ex. 6 (Personal Privacy)] (Manager).

The Manager arrived and I presented my credentials to the Manager. I explained to the Manager that I would be conducting a CAFO inspection to evaluate Calf Land compliance with the requirements of the CWA. I explained that the inspection would consist of a review of facility operations, required records, waste generation and management practices, and a visual inspection of the site. I stated that I would document my findings and observations by taking photographs, obtaining statements from facility staff, and by collecting samples if necessary.

2.1 Interview, Nutrient Management Plan (NMP) and Records Review (The following Records Review tables reflect information provided before the walk-through of the facility, unless otherwise noted.)

Table 1: Facility Description

Type of Animal	Number of Animals	Capacity	Type of Confinement
Calves	5,000	6,500	Hutches and Open Lots
Minimum Number of Animals in previous 5 years:			5,000
Maximum Number of Animals in previous 5 years:			5,000
Number of Animals that are stabled/confined and/or fed/maintained for 45 days or more in previous 12 months:			5,000
Amount of Manure Generated per year:			Unknown
Does the facility have an NPDES Permit?			No
Other facilities under common ownership (name and address): Yes			

Livestock Waste Management

Runoff from the calf hutch area either infiltrates into the sand or flows south to a ditch and then into the field to the south of the calf hutch area. Runoff from the open lots is collected and flows south to the storage pond. Solids are collected and composted onsite between lot 5 and lot 6.

Mortalities are picked up by a rendering service.

Table 2: Livestock Waste Storage

Type of Storage	Storage Capacity	Type of Liner	Depth Markers Present	Last Time Waste was Removed	Days of Storage
Lagoon	Unknown	Synthetic	Yes	Unknown	Unknown
Records at site of storage structure design?				Manager stated that they are maintained by Windy Ridge Dairy, LLC.	
Additional Information:				Manager stated that Windy Ridge handles all manure disposal.	

Table 3: Land Application and Disposal of Manure and Process Wastewater

Number of acres available for land application	Unknown
Are land application records kept?	Unknown
Is manure transferred off-site to another party?	Unknown

Are manure transfer records maintained?	Unknown
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Receiving Surface Waters

At the time of the inspection, surface runoff from the Calf Land site was observed to be flowing to an agricultural field south of the facility and was not observed flowing out of the field. Based on the flow of waterways mapped on the National Hydrography Dataset by the United States Geological Survey, the Surface runoff from the Calf Land site can flow through drainage ways to the Iroquois River that is approximately 15 miles from the facility.

2.2 Nutrient Management Plan

Table 4: Nutrient Management Plan

NMP on site?	No
Additional NMP comments:	Manager stated that all nutrient management is handled by Windy Ridge

Table 5: Land Application Records

Additional land application information:	Manager stated that all land application is handled by Windy Ridge
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Table 6: Facility Records

Mortality handling:	Mortalities are picked up by a renderer
Diversion devices:	All facility records are kept at Windy Ridge according to the Manager.
Impoundments:	
Depth marker observations:	
Water Lines:	
Records at site of storage structure design?	
Overflow records:	
Crop Yields:	
Land Application Dates:	
Weather Conditions at time of application (24 before-24 after):	
Test Methods for Manure Testing:	
Test Methods for Soil Testing:	
Manure Test Results:	
Soil Test Results:	
Calculations of N and P applied:	
Application Methods:	
Application Equipment Inspection Dates:	

2.3 Walkthrough of the Facility

The walkthrough of the Facility began at approximately 9:52 AM at the north end of the facility. In the area south of the Feed Storage Barn, the inspectors observed surface runoff flowing east into a culvert under the access road (photos 6 and 7). The inspectors walked southwest around the office building and south along the west side of the Calf Hutch Area (CHA). The inspectors observed surface runoff from the CHA flowing south along the west side of CHA, along a flow path through the wooded area at the southwest corner of Facility, and into the field south of the Facility (photos 11-22). The inspectors walked west along the wooded area/field edge and observed standing water along the south edge of the wooded area (photo 23). The inspectors then walked north and observed two pipes, beneath a berm, conveying surface runoff south from the grassed swale located centrally in the Facility which divides the west side (the CHA) from the east side (Pen Area) (photos 24 and 25).

The inspectors walked north along the west side of the grassed swale and observed surface water runoff from the CHA flowing into the grassed swale area (photos 26-32). The inspectors also observed a white concrete riser with a white pipe protruding vertically from the middle of it (photos 33 and 34). The Facility Manager stated that she did not know what this was.

The inspectors walked north on the east side of the CHA and observed the ends of two pipes arranged at 45 degrees from one another in the grassed swale area west of pen 5 (photos 38 and 39). It appeared that the pipe laying east to west was conveying flow from a manhole surface drain located in the access road between pen 4 and pen 5 (photo 37).

The inspectors walked north and observed a white pipe protruding into the grassed swale from the west just west of pen 5 (photos 42 and 43). The inspectors continued north on the central access road and observed a pipe in the grassed swale under an east west access road conveying flow to the south (photos 45 and 46). The inspectors continued walking to the north end of the facility and observed surface water from the north end of the facility flowing into a pipe (photos 47 and 48). The inspectors also observed a concrete riser adjacent to the feed storage barn which had a small white pipe which appeared filled (photos 50 and 51).

The inspectors then walked back to the south on the central access road observing the flow to the south of surface runoff from the Pen Area in the ditch on the east side of the central access road (photos 52- 68, 72-78, 81-92). The inspectors also observed pipes which appeared to be conveying flow to the grassed swale on the west side of the central access road from manholes between pens 4 and 5 and between pens 2 and 3 (photos 69-71 and photos 79-80).

The inspectors continued south and observed the liquid in the ditch on the east side of the main access road flowing into the storage pond (photos 92-100).

The inspectors then walked east on the south side of pen 1 and observed a hay storage area. Runoff from the hay storage area appeared to flow to the east (photos 101-104). The inspectors continued walking north on the east side of the Pen Area and observed the calf loading area on the east side of Pen 5. Runoff from this area appeared to flow to the southeast (photos 105-107). The inspectors then walked north around the remainder of the Pen Area and returned the Office on the west side of the facility.

2.4 Closing Conference and Post-Inspection

At the conclusion of the inspection, I summarized my findings and observations to Ex. 6
Ex. 6 (Personal Privacy) I noted that I was concerned that runoff from the Calf Hutch Area and the manholes on the roads between the pens was not contained and was allowed to flow to the field to the south and might have the potential to flow to a surface water in a high enough precipitation event.

We left the facility at 12:35 PM.

Checklist(s) Used
R5 CAFO Inspection Checklist
Federal CAFO Nutrient Management Plan Checklist

2.5 Sampling Information

No sampling was conducted at the time of the inspection.

3. AREA OF CONCERN

EPA observed the following areas of concern:

1. Runoff from the Calf Hutch Area is not collected or contained in an approved structure.
2. Runoff collected by manholes located in the roads between pens is not collected or contained in an approved structure.

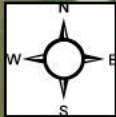
LIST OF ATTACHMENTS

1. Aerial photograph of Calf Land with buildings, waterways and flow pathways labeled.
2. Inspection Photographs



Calf Land, LLC.
Ex. 6 (Personal Privacy)

1 inch = 200 feet



Legend

- Runoff from Calf Hutch Area
- Runoff from Pen Area
- Central Access Road

Calf Land, LLC.
10/31/2013 Inspection

Calf Land LLC
EPA Inspection 10/31/2013
All photos taken by Ben Atkinson, Agronomist, U.S. EPA
Camera: Optio WG-1 GPS



1: IMGP0523

Description: Feed storage barn located at north end of facility.

Location: North side of facility

Camera Direction: Northeast

Date/Time: 10/31/2013



2: IMGP0524

Description: Machine building.

Location: North side of facility

Camera Direction: West

Date/Time: 10/31/2013



3: IMGP0525

Description: Feed storage barn located at north end of facility.

Location: North side of facility

Camera Direction: Northeast

Date/Time: 10/31/2013



4: IMGP0526

Description: East end of feed storage barn.

Location: North side of facility.

Camera Direction: East northeast

Date/Time: 10/31/2013



5: IMGP0527

Description: Looking east from south of feed storage barn.

Location: North side of facility

Camera Direction: east

Date/Time: 10/31/2013



6: IMGP0528

Description: Water flowing into drain culvert. Arrow indicates direction of flow.

Location: North side of facility.

Camera Direction: East

Date/Time: 10/31/2013



7: IMGP0529

Description: Office Building, chemical storage, and milk pasturization building.

Location: North side of facility

Camera Direction: West

Date/Time: 10/31/2013



8: IMGP0530

Description: Lift station for contaminated storm water. Pumps to manure storage pond.

Location: North side of facility.

Camera Direction: West

Date/Time: 10/31/2013



9: IMGP0531

Description: North end of office building. Location EPA vehicle parked. Arrow indicates EPA vehicle.

Location: Northeast of office building.

Camera Direction: West

Date/Time: 10/31/2013



10: IMGP0532

Description: West side of office building. Pasturization tank visible through open door.

Location: West of office building

Camera Direction: East

Date/Time: 10/31/2013



11: IMGP0533

Description: Access road along east side of calf hutch area.

Location: Southeast of office building

Camera Direction: South

Date/Time: 10/31/2013



12: IMGP0534

Description: Looking east between calf hutch rows 11 and 12.

Location: West side of calf hutch area.

Camera Direction: East

Date/Time: 10/31/2013



13: IMGP0535

Description: Sand, straw, and compost located centrally in the calf hutch area.

Location: West side of calf hutch area.

Camera Direction: East

Date/Time: 10/31/2013



14: IMGP0536

Description: Looking south along western edge of calf hutch area.

Location: Southwest side of calf hutch area.

Camera Direction: South

Date/Time: 10/31/2013



15: IMGP0537

Description: Row of recently emptied and cleaned calf hutches (row 26).

Location: Southwest side of calf hutch area.

Camera Direction: East

Date/Time: 10/31/2013



16: IMGP0538

Description: Mound of sand obtained either onsite or nearby. The sand is used as the base for the calf hutch area.

Location: Southwest side of calf hutch area.

Camera Direction: Southeast

Date/Time: 10/31/2013



17: IMGP0539

Description: Ditch located along southeast forested edge of facility.

Location: Southeast corner of facility.

Camera Direction: South Date/Time: 10/31/2013



18: IMGP0540

Description: Looking northeast along ditch conveying runoff from calf hutch area. Flow is to the southeast.

Location: Southwest corner of facility.

Camera Direction: Northeast

Date/Time: 10/31/2013



19: IMGP0541

Description: Facing south into field south of facility. Center pivot irrigation system can be seen.

Location: South of facility.

Camera Direction: South Date/Time: 10/31/2013



20: IMGP0542

Description: Same as 19

Location:

Camera Direction:

Date/Time: 10/31/2013



21: IMGP0543

Description: Looking south in field south of facility at end of ditch conveying runoff from calf hutch area.

Location: South of facility.

Camera Direction: South Date/Time: 10/31/2013



22: IMGP0544

Description: Runoff from facility pooling in field south of facility.

Location: Field south of facility.

Camera Direction: West Date/Time: 10/31/2013



23: IMGP0545

Description: Looking west along tree line south of facility. Stormwater from facility is flowing into this area from pipes under access road located out of photo on the bottom right.

Location: South of facility

Camera Direction: West Date/Time: 10/31/2013



24: IMGP0546

Description: Runoff from the facility flowing south through pipes under access road.

Location: South side of facility between calf hutch area and lots.

Camera Direction: North

Date/Time: 10/31/2013



25: IMGP0547

Description: Outfall side of pipes conveying process waste water.

Location: South side of facility between calf hutch area and open lots.

Camera Direction: Southwest

Date/Time: 10/31/2013



26: IMGP0548

Description: East side of calf hutch area.

Location: Southeast corner of calf hutch area.

Camera Direction: North

Date/Time: 10/31/2013



27: IMGP0549

Description: East side of calf hutch area.

Location: Southeast corner of calf hutch area.

Camera Direction: North

Date/Time: 10/31/2013



28: IMGP0550

Description: Surface runoff from calf hutch area flowing into grassed swale between calf hutch area and open lots.

Location: Southeast corner of calf hutch area.

Camera Direction: Northeast

Date/Time: 10/31/2013



29: IMGP0551

Description: Surface runoff from the calf hutch area flowing to the grass swale between the calf hutch area and the open lots.

Location: Southeast corner of calf hutch area.

Camera Direction: East Date/Time: 10/31/2013



30: IMGP0552

Description: Surface runoff flowing south in grassed swale to the pipes under access road shown in photos 24 and 25.

Location: Southeastern corner of calf hutch area

Camera Direction: Southeast Date/Time: 10/31/2013



31: IMGP0553

Description: Surface runoff flowing south in grassed swale to the pipes under access road shown in photos 24 and 25.

Location: Southeastern corner of calf hutch area

Camera Direction: Southeast Date/Time: 10/31/2013



32: IMGP0554

Description: Pipes conveying surface runoff under access road.

Location: Southeast corner of calf hutch area.

Camera Direction: East

Date/Time: 10/31/2013



33: IMGP0555

Description: Concrete riser with verticle white pipe. Manager did not know what this was.

Location: South end of calf hutch area along north side of tree line.

Camera Direction: Down

Date/Time: 10/31/2013



34: IMGP0556

Description: Concrete riser with verticle white pipe. Manager did not know what this was.

Location: South end of calf hutch area along north side of tree line.

Camera Direction: Southeast

Date/Time: 10/31/2013



35: IMGP0557

Description: East side of calf hutch area.

Location: Southeast side of calf hutch area.

Camera Direction: North

Date/Time: 10/31/2013



36: IMGP0558

Description: Mistake photo

Location:

Camera Direction:

Date/Time: 10/31/2013



37: IMGP0559

Description: Looking east along the back of pen 4 (right) and pen 5 (left). Note manhole in access road.

Location: West side of pen 4 and pen 5.

Camera Direction: East Date/Time: 10/31/2013



38: IMGP0560

Description: Gree pipe (bottom) coming from the east and flowing into white pipe (top) to the south on west side of central access road.

Location: West of pen 4.

Camera Direction: West Date/Time: 10/31/2013



39: IMGP0561

Description: Gree pipe (bottom) coming from the east and flowing into white pipe (top) to the south on west side of central access road.

Location: West of pen 4.

Camera Direction: West Date/Time: 10/31/2013



40: IMGP0562

Description: Grassed swale between calf hutch area and lots.

Location: Center of facility between calf hutch area and lots.

Camera Direction: North

Date/Time: 10/31/2013



41: IMGP0563

Description: Grassed swale between calf hutch area and lots.

Location: Center of facility between calf hutch area and lots.

Camera Direction: South

Date/Time: 10/31/2013



42: IMGP0564

Description: Pipe under across road across grassed swale in center of facility.

Location: Access road in center of facility.

Camera Direction: South Date/Time: 10/31/2013



43: IMGP0565

Description: Same as photo 42

Location:

Camera Direction: Date/Time: 10/31/2013



44: IMGP0566

Description: Ditch which runs north south along western edge pen area. This ditch collects and transports runoff from the lots to the manure pond to the south.

Location: East side of north south access road between calf hutch area and open lots.

Camera Direction: South Date/Time: 10/31/2013



45: IMGP0567

Description: Surface runoff flowing to the south in grassed swale between calf hutch area and pen area.

Location: North end of north south access road.

Camera Direction: North Date/Time: 10/31/2013



46: IMGP0568

Description: View along central access road. Grassed swale conveying surface runoff to the right.

Location: North end of central access road.

Camera Direction: South Date/Time: 10/31/2013



47: IMGP0569

Description: Surface water flowing to manhole (orange cone) which conveys surface runoff to grassed swale along central access road. Office building in distance.

Location: North end of facility.

Camera Direction: West Date/Time: 10/31/2013



48: IMGP0570

Description: Surface water flowing to manhole (orange cone) which conveys surface runoff to grassed swale along central access road. Office building in distance (right) and calf hutches (left).

Location: North end of facility.

Camera Direction: Date/Time: 10/31/2013



49: IMGP0571

Description: Driveway to the northwest.

Location: North end of facility

Camera Direction: Northwest

Date/Time: 10/31/2013



50: IMGP0572

Description: Concrete riser with pipe located next to feed storage barn.

Location: Adjacent to feed storage barn on north end of facility.

Camera Direction: Down.

Date/Time: 10/31/2013



51: IMGP0573

Description: Concrete riser with pipe located next to feed storage barn.

Location: Adjacent to feed storage barn on north end of facility.

Camera Direction: West

Date/Time: 10/31/2013



52: IMGP0574

Description: Looking southeast along west end of pens.

Location: North end of facility, east of central access road.

Camera Direction: Southeast

Date/Time: 10/31/2013



53: IMGP0575

Description: Ditch on east side of central access road which collects and conveys surface runoff from pens.

Location: North end of facility on central access road.

Camera Direction: South Date/Time: 10/31/2013



54: IMGP0576

Description: Same as photo 53

Location:

Camera Direction:

Date/Time: 10/31/2013



55: IMGP0577

Description: Surface runoff from Pen 7 (left) flowing to ditch on east side of central access road.

Location: West of Pen 7.

Camera Direction: East

Date/Time: 10/31/2013



56: IMGP0578

Description: Surface runoff from Pen 7 (left) flowing to ditch on east side of central access road.

Location: West of Pen 7.

Camera Direction: South

Date/Time: 10/31/2013



57: IMGP0579

Description: South end of pipes under road between Pen 7 and Pen 6.

Location: Northwest corner of Pen 6.

Camera Direction: Down

Date/Time: 10/31/2013



58: IMGP0580

Description: Surface runoff from pen area flowing south in ditch on east side of central access road.

Location: West of Pen 6.

Camera Direction: Southeast

Date/Time: 10/31/2013



59: IMGP0581

Description: Runoff from Pen 6 flowing to ditch on east side of central access road.

Location: Southwest corner of Pen 6.

Camera Direction: East

Date/Time: 10/31/2013



60: IMGP0582

Description: Ditch flowing into pipes under road between Pen 6 and compost area.

Location: Southwest corner of Pen 6.

Camera Direction: East Date/Time: 10/31/2013



61: IMGP0583

Description: Runoff from composting area flowing to ditch along east side of central access road.

Location: Southwest corner of Pen 6.

Camera Direction: Southeast Date/Time: 10/31/2013



62: IMGP0584

Description: Runoff from composting area flowing to ditch along east side of central access road.

Location: West of composting area.

Camera Direction: East

Date/Time: 10/31/2013



63: IMGP0585

Description: Runoff from composting area flowing to ditch along east side of central access road.

Location: West of composting area.

Camera Direction: East

Date/Time: 10/31/2013



64: IMGP0586

Description: Pipe in grassed swale west of central access road conveying surface runoff from northwest side of facility.

Location: Grassed swale on west side central access road west of composting area.

Camera Direction: Southwest

Date/Time: 10/31/2013



65: IMGP0587

Description: Flow of runoff from pen area and composting area flowing into pipes under access road south of composting area.

Location: southwest corner of composting area.

Camera Direction: East Date/Time: 10/31/2013 *



66: IMGP0588

Description: Outlet of pipes conveying runoff from pen area and composting area under road south of composting area on east side of central access road.

Location: Southwest corner of composting area.

Camera Direction: South Date/Time: 10/31/2013



67: IMGP0589

Description: Runoff from pen 5 flowing to ditch on east side of central access road.

Location: West of pen 5.

Camera Direction: East Date/Time: 10/31/2013



68: IMG0590

Description: Pipes under road between pen 5 and pen 4 conveying flow south in ditch on east side of central access road.

Location: West of pen 5.

Camera Direction: South Date/Time: 10/31/2013



69: IMG0591

Description: Green pipe under central access road flowing into grassed swale on west side of central access road.

Location: West of pen 4.

Camera Direction: West Date/Time: 10/31/2013



70: IMGP0592

Description: Flow from green pipe under central access road (photo 69) and flow in grassed swale converging and flowing south into white pipe under east-west road between calf hutch area and pen area.

Location: West of pen 4.

Camera Direction: Northeast Date/Time: 10/31/2013



71: IMGP0593

Description: Green pipe under central access road flowing into grassed swale on west side of central access road.

Location: West of pen 4.

Camera Direction: North Date/Time: 10/31/2013



72: IMGP0594

Description: Flow of runoff from pen areas through pipes under road between pen 5 and pen 4.

Location: West of pen 4.

Camera Direction: North

Date/Time: 10/31/2013



73: IMGP0595

Description: Pen 4.

Location: West of pen 4.

Camera Direction: East

Date/Time: 10/31/2013



74: IMGP0596

Description: Flow of runoff from pen areas through pipes under road between pen 4 and pen 3.

Location: West of pen 4.

Camera Direction:

Date/Time: 10/31/2013



75: IMGP0597

Description: Close up of water entering pipes under road between pen 4 and pen 3.

Location: West of pen 4.

Camera Direction: Down

Date/Time: 10/31/2013



76: IMGP0598

Description: Flow out of pipes under road between pen 4 and pen 3.

Location: West of pen 3.

Camera Direction: East

Date/Time: 10/31/2013



77: IMGP0599

Description: Pen 3.

Location: West of Pen 3.

Camera Direction: East

Date/Time: 10/31/2013



78: IMGP0600

Description: Flow of water into pipes under road between pen 3 and pen 2.

Location: West of pen 3.

Camera Direction: South

Date/Time: 10/31/2013



79: IMGP0601

Description: Between pen 3 (left) and pen 2 (right). Arrow points to manhole draining road.

Location: West of pen 2.

Camera Direction: East

Date/Time: 10/31/2013



80: IMGP0602

Description: Close up of manhole on road between pen 3 and pen 2.

Location: West of pen 2.

Camera Direction: East

Date/Time: 10/31/2013



81: IMGP0603

Description: Runoff flowing south out of pipes under road between pen 3 and pen 2.

Location: West of pen 2.

Camera Direction: South

Date/Time: 10/31/2013



82: IMGP0604

Description: Runoff flowing south out of pipes under road between pen 3 and pen 2.

Location: West of pen 2.

Camera Direction: Northeast

Date/Time: 10/31/2013



83: IMGP0605

Description: Runoff from pen 2 flowing into ditch on east side of central access road.

Location: West of pen 2.

Camera Direction: East

Date/Time: 10/31/2013



84: IMGP0606

Description: Runoff flowing into pipes under road between pen 2 and pen 1.

Location: West of pen 2.

Camera Direction: Southeast

Date/Time: 10/31/2013



85: IMGP0607

Description: Road between pen 2 (left) and pen 1 (right).

Location: West of pen 2.

Camera Direction: East

Date/Time: 10/31/2013



86: IMGP0608

Description: Flow out of pipes beneath road between pen 2 and pen 1.

Location: West of pen 1.

Camera Direction: South Date/Time: 10/31/2013



87: IMGP0609

Description: Runoff from pen 1 flowing into ditch on east side of central access road.

Location: West of pen 1.

Camera Direction: East Date/Time: 10/31/2013



88: IMGP0610

Description: Flow in ditch on east side of central access road into pipes under road south of pen 1.

Location: West of pen 1.

Camera Direction: South Date/Time: 10/31/2013



89: IMGP0611

Description: Flow out of pipes under road south of pen 1 in ditch on east side of central access road.

Location: West of pen 1.

Camera Direction: South Date/Time: 10/31/2013



90: IMGP0612

Description: Ditch on east side of central access road flowing into pipe under berm of storage pond.

Location: West of pen 1.

Camera Direction: South Date/Time: 10/31/2013



91: IMGP0613

Flow out of pipes under road south of pen 1 in ditch on east side of central access road.

Location: West of pen 1.

Camera Direction: South Date/Time: 10/31/2013



92: IMGP0614

Description: Ditch on east side of central access road flowing into pipe under berm of storage pond.

Location: West of pen 1.

Camera Direction: South Date/Time: 10/31/2013



93: IMGP0615

Description: Ditch on east side of central access road flowing into pipe under berm of storage pond.

Location: Northwest corner of storage pond.

Camera Direction: East Date/Time: 10/31/2013



94: IMGP0616

Description: Outlet of pipe receiving flow from ditch on east side of central access road into storage pond.

Location: Northwest corner of storage pond.

Camera Direction: South Date/Time: 10/31/2013



95: IMGP0617

Description: Outlet of pipe receiving flow from ditch on east side of central access road into storage pond.

Location: Northwest corner of storage pond.

Camera Direction: Southeast Date/Time: 10/31/2013



96: IMGP0618

Description: Outlet of pipe receiving flow from ditch on east side of central access road into storage pond.

Location: Northwest corner of storage pond.

Camera Direction: Southeast Date/Time: 10/31/2013



97: IMGP0619

Description: Outlet of pipe receiving flow from ditch on east side of central access road into storage pond.

Location: Northwest corner of storage pond.

Camera Direction: South Date/Time: 10/31/2013



98: IMGP0620

Description: Outlet of pipe receiving flow from ditch on east side of central access road into storage pond.

Location: Northwest corner of storage pond.

Camera Direction: South Date/Time: 10/31/2013



99: IMGP0621

Description: Outlet of pipe receiving flow from ditch on east side of central access road into storage pond.

Location: Northwest corner of storage pond.

Camera Direction: Southeast Date/Time: 10/31/2013



100: IMGP0622

Description: Storage pond.

Location: Northwest corner of storage pond.

Camera Direction: South Date/Time: 10/31/2013



101: IMGP0623

Description: Hay storage on southeast side of pen area. Note runoff from hay storage area flowing to east.

Location: Southeast corner of facility

Camera Direction: Northeast

Date/Time: 10/31/2013



102: IMGP0624

Description: Area to which runoff from hay storage area flows.

Location: Southeast corner of facility

Camera Direction: East

Date/Time: 10/31/2013



103: IMGP0625

Description: Hay storage on southeast side of pen area.

Location: Southeast corner of facility

Camera Direction: East

Date/Time: 10/31/2013



104: IMGP0626

Description: Hay storage on southeast side of pen area. Note runoff from hay storage area flowing to east.

Location: Southeast corner of facility

Camera Direction: East

Date/Time: 10/31/2013



105: IMGP0627

Description: Calf loading area east of pen 5. Note runoff pathway (arrow).

Location: East of pen 5.

Camera Direction: North

Date/Time: 10/31/2013



106: IMGP0628

Description: Runoff pathway from calf loading area to the southeast.

Location: East of pen 5.

Camera Direction: Southeast

Date/Time: 10/31/2013



107: IMGP0629

Description: Area into which runoff pathway from calf loading area flows

Location: East of pen 5.

Camera Direction: East

Date/Time: 10/31/2013

